Filing Date: April 19, 2004

Title: BLOOD COAGULATION TEST CARTRIDGE, SYSTEM, AND METHOD

Dkt.; P0021018.00US

Amendments to the Claims

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-2 (Cancelled)

3. (Currently amended) The system of claim 2 A system comprising:

a test cartridge comprising:

a cartridge housing having at least one cylindrical test chamber therein into which a test sample is deposited to be tested, the test chamber having a test chamber axis, a test chamber diameter and a test chamber height defining a test chamber volume; and an agitator mounted at a pivot point at the test chamber axis, the agitator having an agitator vane adapted to be swept about the pivot point and through the test sample in the test chamber, the agitator vane having an agitator vane height extending substantially through the test chamber height and an agitator vane length extending substantially through the test chamber diameter; and

a test instrument comprising:

an instrument housing including a cartridge receptacle for supporting the test cartridge; sweeping means for sweeping the agitator vane about the pivot point through the test sample in substantially the full test chamber volume; detecting means for detecting a reduction of sweeping movement of the agitator vane; and timing means for timing a coagulation test time elapsed from the commencement of sweeping of the agitator vane until the detection of reduction of the sweeping movement.

wherein the test cartridge is formed of the cartridge housing and comprises a test chamber pivot element; and the agitator vane comprises an agitator pivot element engaging the test chamber pivot element allowing rotational motion of the agitator vane about a pivot axis at the pivot point, and wherein the agitator vane comprises first and second agitator vane leaflets extending in opposed directions away from the pivot axis through the agitator vane length presenting

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agitator leaflet sweeping faces bounded by vane leaflet edges against the test sample disposed in the test chamber during rotation of the agitator vane leaflets.

- 4. (Original) The system of claim 3, wherein the agitator vane leaflets are symmetric and shaped in the form of propeller blades and present symmetric, curved propeller sweeping faces against the test sample disposed in the test chamber during rotation of the agitator vane leaflets.
- 5. (Original) The system of claim 3, wherein the agitator vane is tubular and the agitator vane leaflets are symmetric and present symmetric convex curved leaflet sweeping faces against the test sample disposed in the test chamber during rotation of the agitator vane leaflets.
- 6. (Original) The system of claim 3, wherein the agitator vane leaflets are symmetric and present symmetric substantially flat leaflet sweeping faces against the test sample disposed in the test chamber during rotation of the agitator vane leaflets.
- 7. (Original) The system of claim 6, wherein the agitator vane comprises an elongated U-shaped channel extending between opposed channel ends and an agitator pivot element between the opposed channel ends.
- 8. (Original) The system of claim 6, wherein the vane leaflet edges are notched.
- 9. (Original) The system of claim 3, wherein the agitator vane comprises an elongated U-shaped channel extending between opposed channel ends and an agitator pivot element between the opposed channel ends.
- 10. (Original) The system of claim 3, wherein the vane leaflet edges are notched.
- 11. (Original) The system of claim 3, wherein the agitator vane leaflets are symmetric and present symmetric substantially convex leaflet sweeping faces against the test sample disposed in the test chamber during rotation of the agitator vane leaflets.

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12. (Original) The system of claim 11, wherein the agitator vane comprises an elongated tube extending between opposed tube ends and an agitator pivot element between the opposed tube ends.

- 13. (Original) The system of claim 3, wherein the agitator vane leaflets are symmetric and present symmetric concave curved leaflet sweeping faces against the test sample disposed in the test chamber during rotation of the agitator vane leaflets.
- 14. (Original) The system of claim 3, wherein the agitator vane leaflets are symmetric and present symmetric leaflet sweeping faces having notched leaflet edges against the test sample disposed in the test chamber during rotation of the agitator vane leaflets.
- 15. (Original) The system of claim 3, wherein the agitator vane leaflets are formed by a substantially rectangular frame surrounding a leaflet window, whereby the agitator vane leaflets present leaflet sweeping faces having at least one window against the test sample disposed in the test chamber during rotation of the agitator vane leaflets.
- 16. (Original) The system of claim 15, wherein the frame supports a mesh disposed across the leaflet window.
- 17. (Original) The system of claim 3, wherein the agitator vane leaflets have a plurality of sieve holes extending through the agitator vane leaflets, whereby the agitator vane leaflets present leaflet sweeping faces having a plurality of sieve holes against the test sample disposed in the test chamber during rotation of the agitator vane leaflets.
- 18. (Original) The system of claim 3, wherein the agitator vane leaflets have a plurality of slots extending through the agitator vane leaflets, whereby the agitator vane leaflets present leaflet sweeping faces having a plurality of substantially parallel teeth against the test sample disposed in the test chamber during rotation of the agitator vane leaflets.

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19. (Original) The system of claim 18, wherein the plurality of substantially parallel teeth of each vane leaflet extend away from the pivot axis.

20. (Original) The system of claim 3, wherein a mesh is disposed across the agitator leaflet sweeping faces.

Claims 21-43 (Cancelled).